

DETAILED ACTION

Drawings

1. The drawings are objected to because Reference No. 113 as described on Pg. 8, line 32 of the specification is not represented in corresponding Fig. 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Regarding claim 42, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 22-31,33,35,36,40-42 are rejected under 35 U.S.C. 102 (a) as being anticipated by US Patent Application Publication No. 2003/0200662 to Moore et al. (Moore).

Moore teaches a cutting head (Fig. 10, 1) for a edge-trimmer comprising a motor (Fig. 10, motor shaft 37 attaches to motor); parallel two passageways, (Fig. 3, 5) which open to the outside of the head at two ends; a passage way which is circular or oblong (Fig. 8); a moveable element for locking the wire (Fig. 4, 15), wherein the locking element contains a slide (with two arms), which is capable of moving linear (Pg 3, Para 0048) which intersects the wire passageway and subjected to a force (Pg. 1, Para 002, Pg. 3, Para 0050), the slide and the wire passage have working surfaces capable of locking the wire by shearing effect (Pg. 4, Para 0054), a working surface of the slide formed in the slide (Fig. 4, 15) with the same cross section as the wire passageway (Fig. 4, 22); a centrifugal force (Pg. 1, Para 0012); a slide acted upon by a spring (Fig.

4, 25, Para 0050), which is capable of locking two sections of the cutting wire (Fig. 8, Pg. 4, Para 52) in the same direction as the centrifugal force (Pg. 1, Para 0012); two wire passages (Fig. 3, 5), which are parallel and define four wire outlets (Fig. 8) in the peripheral direction of the head; an actuation portion, set back from the peripheral of the cutting head, can be accessed from the outside of the head to position a slide (Pg. 3, Para 0049).

The recitation "a cutting head for a brush-cutter, edge trimmer or similar" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Additional interpretation of Claims 22-30 and 42

6. Claims 22-30 and 42 are rejected under 35 U.S.C. 102 (b) as being anticipated by US Patent No. 5,758,424 to Iacona et al. (Iacona).

Iacona teaches a cutting head (Fig. 1, 10) for a edge trimmer comprising a motor (Fig. 2, drive shaft 26 is driven by a motor); a passageway (Fig. 2, aperture 34, forms a passageway for cutting line 14) which open to the outside of the head, a moveable element for locking the wire (Fig. 1, 36), wherein the locking element comprises a slide (Fig. 2, 38) with is capable of moving linearly in a guide that intersects the wire

passageway (Col 5, lines 33-38), the slide and the wire passing having working surfaces (Fig. 2, 28,32) capable of locking the wire by shearing effect, a slide acted upon by a spring (Fig. 2, 40), in the same direction as the centrifugal force (Col.5, lines 9-12); a centrifugal force (Fig. Col. 5, lines 5-6); two slides (Fig. 2, 38) capable of locking two sections of a cutting wire (Col. 5, lines 5-9, Col. 5, lines 20-24), in which move in opposite directions (Fig. 2).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 32, 34, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication No. 2003/0200662 to Moore et al. (Moore).

Moore teaches a cutting head (Fig. 10,1), a wire passage (Fig. 3, 5), which are parallel and define four wire outlets (Fig. 8) in the peripheral direction of the head, but does not explicitly teach the outlets are spaced approximately 90 degrees in the peripheral direction of the head, a diamond shaped cross section in the wire passageway, a slide with a different cross section than the wire cross section, a profiled working surface oriented obliquely to the movement of the slide.

It would have been obvious to one having ordinary skill in the art at the time of invention to position the outlets a specific distance in the head in order for the cutting lines to engage the proper and produce uniform cutting of the surface area during

cutting. The distance also allows the operator adequate space for replacing the line, from wear or breakage. It would have further been obvious to orient the working surface at a desired angle, in order to form a greater grasp of the cutting line when acted upon by a centrifugal force. The tighter grasp, prevents the cutting line from slipping when it approaches hard or dense vegetation. It would have further been obvious to utilize various cross sections of the wire passageway and within the slide, which do not correspond to the cross section of the head in order to accommodate various size and shape cutting lines. The various cross sections of the wire passageway increases the versatility of the tool. It is noted, it would have been an obvious matter of design choice to make the different portions of the cross section of the slide or wire passage of whatever form or shape was desired or expedient. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47. It is further noted, it would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 6,601,373, US Patent No. 5,852,876 teaches a cutter head for an edge-trimmer or brush trimmer with parallel circular, or polygonal passageways, a cutting line, four wire outlets, a centrifugal forces which acts on the head during operation. US Patent No. 4,104,797 teaches a cutter head, with parallel

polygonal passageways, a cutting line, four wire outlets, a motor and a slide. US Patent No. 5,020,224 teaches a cutter head, square passageways, a cutting line, four wire outlets, and a motor. US Patent No. 5,890,352 teaches a cutter head, a plurality of square passageways, wire outlets and a motor.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER SWINNEY whose telephone number is (571) 270-5843. The examiner can normally be reached on Monday-Friday, 7:30 am-5:00 pm EST.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Daniel Prone/
Primary Examiner, Art Unit 3724

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